

10/561312

Claims

IAP20 Received 19 DEC 2005

1. (original) An electric power tool, having an electric motor acting to drive a tool, characterized by a sensor unit, which detects the contact pressure of the tool (6) against a workpiece (7) and cooperates with a signal transducer (10).

2. (original) An electric power tool, having an electric motor acting to drive a tool, in particular in accordance with claim 1, and having a control and/or regulating unit serving to guide the operation of the electric motor, characterized by a sensor unit, which detects the contact pressure of the tool (6) against a workpiece (7) and cooperates with the control and/or regulating unit (20).

3. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the sensor unit (9) has a strain gauge and/or a piezoelectric sensor.

4.(currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the sensor unit (9) has a current-measuring device (23), which detects the current of the electric motor (8).

5. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the current- measuring device (23) has a shunt (31), through which the motor current flows, and an electronic evaluation unit (36).

6. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the signal transducer (10) is an optical and/or an acoustical signal transducer (12, 13) and/or a signal transducer (14) that calls on the sense of touch.

7. (currently amended) The electric power tool in accordance with ~~one of the~~

~~foregoing claims~~ claim 1, characterized in that the optical signal transducer (12) is at least one LED (15, 16) and/or an LED array (17) and/or a display (19) and/or a bar display (18).

8. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the acoustical signal transducer (13) is a speaker and/or a bell.

9. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that a device that has a sound output, in particular a speech output, is associated with the speaker.

10. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the control and/or regulating unit (20) controls and/or regulates the torque of the tool (6), or of a tool receptacle (6'), as a function of the contact pressure of the tool (6) against the workpiece (7).

11. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the control and/or regulating unit (20) controls and/or regulates the rotary speed of the tool (6), or of a tool receptacle (6'), as a function of the contact pressure of the tool (6) against the workpiece (7).

12. (currently amended) The electric power tool in accordance with ~~one of the foregoing claims~~ claim 1, characterized in that the control and/or regulating unit (20) controls and/or regulates the torque of the tool (6), or of a tool receptacle (6'), as a function of the contact pressure of the tool (6) against the workpiece (7) at a predetermined rotary speed.

13. (original) A method for guiding the operation of an electric power tool that has an electric motor, in particular having a sensor unit and having a signal

transducer in accordance with one of the foregoing claims, characterized by the following steps:

- determining the contact pressure of the tool against the workpiece;
- outputting the contact pressure to enable the changing of the contact pressure of the tool by the user.

14. (original) A method for guiding the operation of an electric power tool that has an electric motor, in particular having a sensor unit and having a signal transducer in accordance with one of the foregoing claims, characterized by the following steps:

- determining the contact pressure of the tool against the workpiece;
- automatically adjusting the torque of the electric motor, of a tool, and/or of a tool receptacle, as a function of the contact pressure, in particular taking a predetermined rotary speed into account.